STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT BOOK

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 032006-012

Project Number: 2005-12-056
055-P027

Owner: N. B. West Contracting Company, Inc.

Owner's Address: 2780 Mary Avenue, St. Louis, MO 63144-2796

Installation Name: N. B. West Contracting Company, Inc.

Installation Address: 3105 Highway FF, Bourbon, MO 65441

Location Information: Crawford County, S32, T40N, R2W

Application for Authority to Construct was made for:

Portable asphalt plant (PORT-0486) requested to change its status to become a stationary plant (055-P027). Best Management Practices will be used at this site to control fugitive emissions from haul roads, storage piles, and vehicular activity areas. Asphalt is produced through a Drum Mix Dryer. The asphalt plant has a maximum hourly design rate (MHDR) of 400 tons per hour (tph). This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

☐ Standard Conditions (on reverse) are applicable to this permit.

☑ Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

MAR 21 2006

EFFECTIVE DATE

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

MO 780-1204 (1-03)

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority"; by 10 CSR 10-6.010 "Ambient Air Quality Standards" and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3. Furthermore, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.

1. Best Management Practices
   N. B. West Contracting Company shall control fugitive emissions from all of the haul roads, stockpiles, and vehicular activity areas at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.

2. Daily Production Limit
   A. The operator(s) shall ensure that N. B. West Contracting Company's asphalt plant (055-P027) produce less than 7368 tons of asphalt per day.
   B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. Attachment A, *Daily Production Tracking Record*, or other equivalent form(s), will be used for this purpose.

3. Annual Emission Limit of Carbon Monoxide (CO)
   A. The operator(s) shall ensure that N. B. West Contracting Company's asphalt plant emits less than 100 tons of CO into the atmosphere in any 12-month period.
   B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and CO. Attachment B, *Monthly Carbon Monoxide (CO) Emissions Tracking Record,* or other equivalent form(s), will be used for this purpose.

4. Moisture Content Testing of Storage Piles Requirement
   A. The moisture content of the stockpiled rock will reduce particulate emissions. N. B. West Contracting Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
   B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other method(s) approved by the Director.
   C. The operator may obtain a copy of the test results of the inherent moisture content from the supplier(s) of the aggregate. Otherwise, the operator shall obtain test samples from each shipment of untested aggregate. The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be submitted to the Enforcement section of the Air Pollution Control Program, and a copy shall be sent to the Regional Office.
   D. If the moisture content result of the first test is less than 1.5 wt.%, a second test must be performed within 30 days. If the result of the second test is less than 1.5 wt.%, N. B. West Contracting Company shall apply for a new construction permit to account for the revised information and install wet spray devices on the affected units.

5. Baghouse(s) Control System Requirements
   A. N. B. West Contracting Company shall install and operate baghouse(s) to restrict the emission of particulate matter. The baghouse(s) must be used whenever these units are in operation. The baghouse(s) shall be installed on the following units: Drum Dryer.
   B. The N. B. West Contracting Company shall install instruments to monitor the operating pressure drop across the baghouse. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations. The operator(s) shall check and record the pressure drop across the baghouse filter once per operating day during silo loading. The baghouse operating pressure drop shall be maintained according to

SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

manufacturer's specifications.

C. The operator(s) shall conduct and document a quarterly inspection and maintenance of the baghouse for structural component failures, for leaks and wear, and for the cleaning sequence of the baghouse. Replacement bags shall be kept on hand at all times to replace defective bags (The bags shall be made of fibers appropriate for the operating conditions expected to occur). All inspections, corrective actions, and instrument calibrations shall be recorded.

6. Prohibition Against Concurrent Operations Without Further APCP Review
The asphalt plant (055-P027) is prohibited from operating whenever any other plant(s) are located at this site, except for the following plant:
A. Capital Quarries Co. Inc.'s stationary rock-crushing plant, 055-9001, (Project #2006-01-045)

7. Restriction on the Use of Diesel Engine(s)
The plant shall operate using electrical lines and not diesel engine(s). If the company wishes to switch to diesel engine(s), a new permit review would be required.

8. Restriction on Fuel Usage
Only liquid propane gas (LPG) or natural gas shall be used for the drum dryer. If the company wishes to switch to other types of fuel, a new permit review would be required.

9. Restriction on Minimum Distance to Nearest Property Boundary
The primary emission point of the asphalt plant, which is the stack of the drum mix dryer, shall be located at least 500 feet from the nearest property boundary whenever it is operating at this site.

10. Record Keeping Requirement
The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

11. Reporting Requirement
The operator(s) shall report to the Air Pollution Control Program (APCP) Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.

12. Superseding Condition
The conditions of this permit supersede all special conditions found in the previously issued construction permit(s) (032003-029, 032003-029A, 032003-029B) from the Air Pollution Control Program.

TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

PROJECT DESCRIPTION

Hot Mix Asphalt (HMA) is composed of non-metallic aggregate, sand, mineral filler and other materials with liquid asphaltic cement. These materials are mixed and heated/dried in the drum dryer. Processed HMA is delivered as sellable product. The asphalt plant (055-P027) will run on primary electrical power and not diesel engines. The emission points are listed in the attached spreadsheet summary. This installation is classified under the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2, Item 27]. The installation is located in Crawford County, an attainment area for all criteria air pollutants.

The stationary asphalt plant (055-P027) was formerly a portable rock-crushing plant (PORT-0486). The company requested to change its status from portable to stationary and to use Best Management Practices to control fugitive emissions from haul roads and storage piles. The company also plans to use liquid propane gas (LPG), instead of No. 2 diesel fuel for the drum dryer. This permit allows the company to use both LPG and natural gas, because the emission factors used to estimate emissions from the use of LPG are either the same as or higher than the emission factors from the use of natural gas. If the company wishes to switch to other types of fuel, a new permit review would be required.

The asphalt plant will operate concurrently with Capital Quarries' stationary crushing plant, 055-9001, (Project #2006-01-045). Historically, the two plants have always been considered to be from different sites, each with their own property boundaries. The companies requested to combine the two sites into one so that they will be considered concurrent operations. The two plants have volunteered to share the 150 $\mu g/m^3$ of PM_{10} allowed for the site and also share the aggregate storage piles, high line power, and haul roads.

In the past, another asphalt plant (Permit #102004-005, Project #2004-07-064) was permitted to operate at this site. On November 3, 2005, this plant ceased production and was dismantled.

Table 1. Other Permits Issued for Site 055-P027

Permit Number	Completed	Description
0487-012	04/27/1987	Section 6 construction permit.
0788-008	07/25/1988	Replacing existing portable asphalt plant with another stationary plant.
0894-011	08/01/1994	Adding an asphalt silo. Section 5 construction permit.
1095-013	10/11/1995	Production increase. Section 5 construction permit.
032003-029B	08/17/2004	Section 4 relocation.
102004-005	10/13/2004	Modification for concurrent operation and the use of BMPs.

EMISSIONS EVALUATION

Criteria air pollutants will be emitted from this operation. The main air pollutant of concern is Carbon Monoxide (CO). The potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. Chapter 11.1 of AP-42 does not give emission factors for a drum dryer using LPG. Instead, it gives emission factors for a drum dryer using natural gas. The emission factors for each criteria pollutant using LPG combustion are calculated using the following assumptions.

- In Chapter 1.5 of AP-42, it was indicated that CO emissions from LPG combustion is the same as that of natural gas combustion. Therefore, the CO emission factor from natural gas combustion can be used to calculate CO emissions from LPG combustion.
- In Chapter 1.5 of AP-42, It was indicated that NOx emissions from LPG combustion is 1.5 times the NOx emissions from natural gas combustion. The NOx emission factor from LPG combustion is then calculated by multiplying the emission factor from natural gas combustion by 1.5.
- Not enough data is given in AP-42 for VOC, SOx, and HAPs emissions from LPG combustion. It was assumed that VOC, SOx, and HAPs emission factors from natural gas combustion is the best data available that can be used to estimate emissions from LPG combustion.

The sources of the emission factors and control efficiencies are listed in the section "Permit Documents". The company requested to hold their conditioned potential below *de minimis* levels, and to issue the permit under 10 CSR 10-6.060 section (5).

The asphalt plant has an annual emission limit of less than 100 tons of carbon monoxide (CO) in any 12-month period. A composite CO emission factor was developed for the asphalt plant. The composite emission factor is incorporated into the monthly record keeping table, Attachment B.

Table 2: Emissions Summary (tons per year)

Air Pollutant	Regulatory *De Minimis* Levels	Existing Potential Emissions	Existing Actual Emissions (2004 EIQ)	Potential Emissions of the Application	*New Installation Conditioned Potential	Emission Factor (lb/ton)
PM_{10}	15.0	23.72	1.73	23.72	13.55	N/A
SOx	40.0	4.57	1.11	4.57	2.61	N/A
NOx	40.0	52.44	12.33	52.44	29.95	N/A
VOC	40.0	59.17	1.09	43.03	25.08	N/A
CO	100.0	174.80	4.06	174.80	<100	0.1302
HAPs	10.0/25.0	7.12	N/A	7.12	4.07	N/A

Note: N/A = Not Applicable
*CO conditioned potential based on limit in permit conditions. Other pollutants proportionally reduced.

AMBIENT AIR QUALITY IMPACT ANALYSIS

Screening tools were used to evaluate the ambient air impact of the hourly emissions from this operation. The ambient impact was evaluated at a distance of 500 feet to the nearest property boundary. The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of 150 µg/m^3 of PM_{10} at or beyond the nearest property boundary in any single 24-hour period.

Instead of using the emission factor from AP-42, N. B. West Contracting Co., Inc. requested that data from a stack test be used to estimate the ambient impact contribution of PM_{10} from the drum dryer. The stack test was performed by NPN Environmental Engineers, Inc. in October, 2003. The maximum hourly design rate (MHDR) of the drum dryer is 400 tons per hour (tph), but the stack test was performed using a production rate of 307 tph. In order to use emissions data from the stack test, the actual production rate from the test must be used in the ambient air quality analysis, instead of the manufacturer's MHDR.

For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of 20 µg/m^3 of PM_{10}. To ensure conformity with NAAQS, the remaining process emissions are limited to an impact of less than 130 µg/m^3 of PM_{10} at or beyond the nearest property boundary.

Table 3: Ambient Air Quality Impact Analysis of PM_{10}, 24-Hour Averaging Time

Operation	Ambient Impact Factor (µg/m^{3}ton)	Modeled Impact (µg/m^3)	*Background (µg/m^3)	NAAQS (µg/m^3)	Daily Production Limit (tons)
1. Concurrent, Separate Owners	0.0022	16.56	133.44	150.00	7368

* Background PM_{10} level of 20.00 µg/m3 from haul roads and stockpiles and 113.44 µg/m3 from the operation of Capital Quarries Co., Inc.'s stationary rock-crushing plant, 055-9001, (Project #2006-01-045).

The modeled impact (16.56 µg/m^3) and daily production limit (7368 tons per day) is based on 24 hours per day at 307 tph. However, theoretically, the plant can produce 9600 tons per day because its MHDR is 400 tph. If the plant ever produces at its MHDR, the resulting impact would be higher than the modeled impact and NAAQS limit of PM_{10} would be exceeded. To ensure that the modeled impact does not exceeded 16.56 µg/m^3, the company will be required to track its daily production rate using Attachment A, or similar forms, to show that the daily production rate for PORT-0517 is under 7368 tons per day.

APPLICABLE REQUIREMENTS

The owner is subject to compliance with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements.

- *Submission of Emission Data, Emission Fees and Process Information,* 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- An Operating Permit application is required for this installation within 30 days of equipment startup.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090
- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
- 40 CFR Part 60 Subpart "I", *Standards of Performance for Hot Mix Asphalt Facilities*, of the New Source Performance Standards (NSPS)
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not apply to the proposed equipment.

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Chia-Wei Young
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating N. B. West Contracting Company, Inc. as the owner and operator of the installation.
- Environmental Protection Agency (EPA) AP-42, *Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition.*
- Noyes Data Corp. book, Orlemann, et al.1983, *Fugitive Dust Control*.
- EPA Factor Information Retrieval (FIRE) Version 6.21.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Southeast Regional Office Site Survey.
- Best Management Practices.
- Stack Testing Data from 2003 performed by NPN Environmental Engineers, Inc..

Attachment A: Daily Production Tracking Record
N. B. West Contracting Company, 055-P027 – Asphalt Plant

Project Number: 2005-12-056
County, CSTR: Crawford County (S32, T40N, R2W)
Primary Unit Size: 307 tph
Distance to Nearest Property Boundary: 500 feet

This sheet covers the period from _____ to _____ (Month, Day, Year) *(Copy this sheet as needed.)*

N. B. West Contracting Company
055-P027
Project # 2005-12-056

Date	[1]Daily Production (tons)	Date	[1]Daily Production (tons)	Date	[1]Daily Production (tons)	Date	[1]Daily Production (tons)

Note 1: A daily production rate of 7368 tons indicates compliance.

Attachment B: Monthly Carbon Monoxide (CO) Emissions Tracking Record
N. B. West Contracting Company, 055-P027 – Asphalt Plant

Project Number: 2005-12-056
County, CSTR: Crawford County (S32, T40N, R2W)
Primary Unit Size: 307 tph
Distance to Nearest Property Boundary: 500 feet

This sheet covers the period from _____ to _____ (Month, Day, Year)
(Copy this sheet as needed.)

Month	Monthly Production (tons)	Composite CO Emission Factor (lbs/ton)	[1]Monthly CO Emissions (lbs)	[2]Monthly CO Emissions (tons)	[3]12-Month CO Emissions (tons/year)
		0.1302			
		0.1302			
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Note 1: The Monthly Emissions (lbs) are calculated by multiplying the Monthly Production (tons) by the Composite Emission Factor (lbs/ton).
Note 2: The Monthly Emissions (tons) are calculated by dividing the Monthly Emissions (lbs) by 2,000.
Note 3: The 12-Month Emissions (tons/year) are a rolling total calculated by adding the Month's Emissions (tons) to the Monthly Emissions (tons) of the previous eleven (11) months. A total of less than **100** tons in any consecutive 12-month period indicates compliance.

Attachment AA: Best Management Practices (BMPs)- Construction Industry Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

For Haul Roads:

1. Pavement of Road Surfaces –
   - A. The operator(s) may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve "Control of Fugitive Emissions[1]" while the plant is operating.
   - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
   - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Usage of Chemical Dust Suppressants –
   - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
   - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
   - C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

3. Usage of Documented Watering –
   - A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
   - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
   - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
   - D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
   - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

[1] For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

For Vehicle Activity Areas around Open Storage Piles:

1. Pavement of Stockpile Vehicle Activity Surfaces –
   - A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
   - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
   - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Usage of Chemical Dust Suppressants –
   - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
   - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
   - C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

3. Usage of Documented Watering –
   - A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
   - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
   - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
   - D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
   - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.